

WHAT IS CLAIMED IS:

1. A flat panel display comprising:

a faceplate;

a backplate combined with the faceplate to form a vacuum tight cell;

5 an image production unit provided within the cell to produce display images from the cell;

a plurality of spacers mounted within the cell such that the spacers are placed at a non-display area, the spacers being held between the faceplate and the backplate; and

10 a pair of alignment members connected to the spacers in a body to align the spacers at the non-display area in a constant manner.

2. The flat panel display of claim 1 wherein each alignment member is connected to one-sided end portions of the spacers.

3. The flat panel display of claim 1 wherein the spacers are
15 longitudinally placed along each one side of the plates parallel to each other.

4. The flat panel display of claim 1 further comprising a pair of subsidiary alignment members, the subsidiary alignment members are arranged perpendicular to the alignment members to form a rectangular frame.

5. The flat panel display of claim 1 wherein each spacer is
20 provided with a plurality of exhaust grooves.

6. The flat panel display of claim 5 wherein the exhaust grooves are arranged at the spacer in the longitudinal direction while being spaced apart from each other with a predetermined distance.

7. The flat panel display of claim 5 wherein each spacer is provided with a plurality of grooves for preventing image distortion.

8. The flat panel display of claim 7 wherein the image distortion preventing grooves are arranged at the spacer in the longitudinal direction while being spaced apart from each other with a predetermined distance.

9. The flat panel display of claim 7 wherein the exhaust grooves and the image distortion preventing grooves are symmetrical to each other with respect to the longitudinal center line of the spacer.

10. The flat panel display of claim 1 wherein each alignment member is formed with a plurality of exhaust grooves.

11. The flat panel display of claim 10 wherein the exhaust grooves are arranged at the alignment member in the longitudinal direction.

12. The flat panel display of claim 11 wherein the exhaust grooves are arranged symmetrical to each other with respect to the longitudinal center line of the alignment member.

13. The flat panel display of claim 4 wherein each subsidiary alignment member is provided with a plurality of exhaust grooves.

14. The flat panel display of claim 13 wherein the exhaust grooves are arranged at the subsidiary alignment member in the longitudinal direction while being spaced apart from each other with a predetermined distance.

15. The flat panel display of claim 14 wherein the exhaust grooves are arranged symmetrical to each other with respect to the longitudinal center line of the subsidiary alignment member.

16. The flat panel display of claim 1 wherein the image production unit comprises:

a plurality of cathode electrodes formed at the backplate with a predetermined pattern;

an insulating layer formed at the backplate, the insulating layer having a plurality of breakthrough holes placed on the cathode electrodes;

a plurality of emitters contacting the cathode electrodes, each emitter being disposed within each breakthrough hole;

a plurality of gate electrodes formed on the insulating layer with a predetermined pattern, the gate electrodes having opening portions communicated with the breakthrough holes;

an anode electrode formed on the faceplate while facing the gate electrodes; and

a plurality of phosphor layers formed on the anode electrode with a predetermined pattern.

17. The flat panel display of claim 1 wherein the vacuum degree of the cell is kept to be 10^{-7} torr.

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